

## UNCLASSIFIED

Joint Chiefs of Staff  
FY 2000/2001 RDT&E PROGRAM

EXHIBIT R-1

APPROPRIATION: 0400D Research Development Test &amp; Eval, Defwide

Date: FEB 1999

Line No	Program Element Number	Item	Act	Thousands of Dollars				S E C
				FY 1998	FY 1999	FY 2000	FY 2001	
70	0603857J	All Service Combat Identification Evaluation Team (ASCIET)	4		12,976			U
		<b>Demonstration and Validation</b>			<b>12,976</b>			
106	0605126J	Joint Theater Air and Missile Defense Organization	6	14,764	109,599	17,079	16,713	U
		<b>RDT&amp;E Management Support</b>		<b>14,764</b>	<b>109,599</b>	<b>17,079</b>	<b>16,713</b>	
125	0208052J	Joint Analytical Model Improvement Program	7	2,014	1,842	1,024	358	U
		<b>Operational Systems Development</b>		<b>2,014</b>	<b>1,842</b>	<b>1,024</b>	<b>358</b>	
134	0303149J	C4I for the Warrior	7	2,387	2,811	3,018	2,915	U
141	0305188J	Joint C4ISR Battle Center (JBC)	7	2,331				U
		<b>Operational Systems Development</b>		<b>4,718</b>	<b>2,811</b>	<b>3,018</b>	<b>2,915</b>	
159	0902298J	Management Headquarters (OJCS)	7	9,068	9,332	9,531	9,947	U
160	0902740J	Joint Simulation System	7	23,381	24,681	18,421	16,323	U
		<b>Operational Systems Development</b>		<b>32,449</b>	<b>34,013</b>	<b>27,952</b>	<b>26,270</b>	
<b>Total Joint Chiefs of Staff</b>				<b>53,945</b>	<b>161,241</b>	<b>49,073</b>	<b>46,256</b>	

Exhibit R-2, RDT&E Budget Item Justification									Date: February 1999	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide, Joint Staff/BA 4					R-1 ITEM NOMENCLATURE Program Element 0603857J All Service Combat Identification Evaluation Team (ASCIET)					
COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total PE Cost	0	12.976	0	0	0	0	0	0	Continuing	Cont
<p><b>A. Mission Description and Budget Item Justification</b></p> <p>The All Service Combat Identification Evaluation Team (ASCIET) transferred to the Joint Staff during FY 1998. ASCIET was formed from the OSD-Sponsored Joint Air Defense Operations/Joint Engagement Zone (JADO/JEZ) Joint Test and Evaluation Program conducted during FY 1990 through FY 1994. JADO/JEZ tested the ability of Service forces to execute an effective air defense network in a joint tactical environment. In December 1993, the Joint Requirements Oversight Council (JROC) directed that the JADO/JEZ Program transition to the ASCIET Program on 1 October 1994. Per Defense Reform Initiative Directive 29, ASCIET will transfer to the US Atlantic Command (Navy is the executive agent in FY 2000). ASCIET is an expanding effort aimed at fostering improved tactics, techniques and procedures (TTP) across all combat identification (CID) mission areas. ASCIET is chartered to employ the equipment and personnel of all Services to evaluate, investigate, and assess various concepts of combat identification on the battlefield. The US Air Force is the lead Service. ASCIET also offers federally funded research and development centers (FFRDCs), Service battle laboratories, and industry the opportunity to review and evaluate emerging technologies in a multi-Service environment on a not-to-interfere basis as a risk reduction and verification opportunity during ASCIET evaluations. Requirements and resources for FY 1998 come from Navy PE 0604777N, Army PE 0604817A, Marine PE 0206623M, Air Force PE 0207417F. This program is in budget activity 4 which includes efforts necessary to evaluate integrated technologies in as realistic an operating environment as possible to assess the performance or cost reduction potential of advanced technology.</p> <p>ASCIET's efforts to evaluate, document, and report on CID capability are a critical force enabler and a Department priority. Perceived inaction on ASCIET-identified deficiencies in CID has forced changes in the command and control of the ASCIET organization. During FY 1998, the organization was moved under the Joint Staff to ensure a coordinated, synergistic approach for improving warfighting capability into the 21<sup>st</sup> century. By evaluating interoperability, technology application and development, and training, the new organization will provide the means to efficiently assess ground, air, and maritime force capabilities; determine future requirements; develop new systems; and develop a program for long-term procurement. (From inception through FY 1998, ASCIET has been funded annually by all four Services through a Memorandum of Agreement.) The ASCIET staff was directed by the GOSC-CI in summer of FY 1997 to conduct joint Service site surveys to find an operational area that better supports all four Services'/CINC mission area objectives, supports evaluation of all four combat ID mission areas simultaneously, and can be fully instrumented to record data. In March of 1998, the JROC selected FT Stewart/East Coast as the ASCIET 99 evaluation venue and directed ASCIET to conduct a four mission area evaluation in the FT Stewart/East Coast area. During FY 1998, ASCIET did not have an evaluation due to venue change: FY 1998 funding was used for planning ASCIET 99, production of final report for ASCIET 97, contractor, and basic operating costs.</p> <p>For FY 1999, ASCIET was directed by the JROC to increase the scope of the surface-to-surface (from company to battalion size elements) and also expand emphasis on air-to-surface evaluation. In order to meet these requirements, ASCIET changed its venue to a larger maneuver area (FT Stewart, GA.) for ASCIET 99. In FY 1999, the Services will provide an additional 4.2M funding needed for the expanded evaluation.</p> <p>ASCIET will transfer from The Joint Staff to US Atlantic Command (USACOM) for FY2000-2005.</p>										

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, Defense Wide, Joint Staff/BA 4

R-1 ITEM NOMENCLATURE Program Element 0603857J All Service Combat Identification  
Evaluation Team (ASCIET)

FY 1998 Description\*

\$0.750 ASCIET operations: supplies, computer/upgrades, copiers, faxes, phone, members travel, base support, etc.  
6.000 Annual contracts: research of emerging technologies, analysis of data from evaluation.  
0.300 Conferences to plan evaluation: initial planning (IPC), air space, opposing force, site visit. 1 Feb 98– 26 Jun 98  
0.950 Tech Research: instrumentation for ground and air forces, video teleconferencing. 1 Apr 98 – 30 Sept 98  
\$8.000 Total

\*FY 1998 funding is provided for information only (non-add) as it is provided by all four services by Memorandum of Agreement: Navy PE 0604777N, Army PE 0604817A, Marine PE 0206623M, and Air Force PE 0207417F.

FY 1999

\$7.200 Evaluation support: contracts for instrumentation/transport/rental equipment (track costs), participant travel, billeting, and per diem expenses, augmentees for evaluation manpower support (FAA, security, weapons systems specialist), military vehicles, loading/unloading equipment, etc. 2 Oct 98 – 30 Mar 99  
0.845 ASCIET operations: supplies, computer/upgrades, copiers, faxes, phone, members travel, base support, etc.  
4.631 Annual contracts: research of emerging technologies, analysis of data from evaluation.  
0.300 Conferences to plan evaluation: IPC, air space, opposing force, site visit, mid-term conference, final planning conference (FPC), concept of operations. 4 Oct 98– 30 Aug 99  
\$12.976 Total

FY 2000

\$0 ASCIET transfers to USACOM (Navy Executive Agent) in FY2000.

FY 2001

\$0

## B. Program Change Summary:

	FY 1998	FY 1999	FY 2000	FY 2001
FY 1999 President's Budget	8.000*	13.014	13.231	13.461
FY 1999 Appropriated Value		13.014		
Adjustments to Appropriated Value:				
a. Reallocation of Non-programmatic Reductions				
b. Congressional Non-Programmatic Adj/Inflation		-.038		
c. Transfer to U.S. Atlantic Command(Navy)			-13.231	-13.461
FY 2000 President's Budget	0	12.976	0	0

## Reason for Change:

Reductions reflect program's share of Congressional undistributed reductions and inflation. Program transfers to USACOM in FY2000 –FY2005.

\* FY1998 funding is provided as information only (non-add) as it is provided by all four Services by Memorandum of Agreement: Navy PE 0604777N, Army PE 0604817A, Marine PE 0206623M, and Air Force PE 0207417AF.

Exhibit R-2, RDT&E Budget Item Justification		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide, Joint Staff/BA 4	R-1 ITEM NOMENCLATURE Program Element 0603857J All Service Combat Identification Evaluation Team (ASCIET)	
<p>C. Other Program Funding Summary: NA</p> <p>D. Evaluation Strategy:  In FY 1999, ASCIET will conduct an evaluation of all four Services' combat ID capabilities in an instrumented, tactical environment encompassing all combat ID mission areas: surface-to-surface, air-to-surface, surface-to-air, and air-to-air. This evaluation will examine, investigate, and assess various concepts of combat ID on the battlefield with existing and developmental TTP and recommend solutions to combat ID deficiencies. This evaluation will utilize active, guard, and reserve personnel with currently fielded equipment in a scenario robust enough to produce shooter-level "fog of war" yet small enough to be fully instrumented. Planning will include coordination with the Services, battle laboratories, doctrine commands, and tactics schools. The ASCIET 99 evaluation will also provide a joint environment/scenario for data gathering by emerging technologies. The evaluation will have a daily 5-hour vulnerability window, and include both day and night operations, an extensive TADIL-J network incorporating Joint Surveillance Target Attack Radar System (JSTARS) aircraft, return to force aircraft, close air support missions over a maneuvering battlefield, joint theater missile defense and joint combat search and rescue, and will utilize actual Soviet aircraft and vehicles for opposition force realism. ASCIET will analyze resulting data to quantify combat ID capabilities/shortfalls and identify opportunities for TTP development and systems improvement. Results will be published in a final report and briefed to the Services, the Joint Chiefs of Staff, and theater commanders in chief.</p> <p>E. Schedule Profile: Not applicable. ASCIET conducts an annual combat ID evaluation, employing assets from all four armed Services, to evaluate combat ID and mission effectiveness of representative forces using currently fielded systems in a realistic environment. Three major planning conferences involving Service participants as well as mini-evaluations, demonstrations, and rehearsals are used as a prelude to live evaluation to reduce technical risk, develop procedures and architectures, and refine operational plans.</p>		

Exhibit R-3 Cost Analysis (page 1)										Date: September 1998		
APPROPRIATION/BUDGET ACTIVITY RTD&E BA4				PROGRAM ELEMENT 0603857J				PROJECT NAME AND NUMBER ASCIET				
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation	C/FP MIPR	SAIC EGLIN AFB	3.769	3.769	Oct	0	Oct	0	Oct	Cont		
Operational Test & Evaluation	SS/CPFF MIPR	Stanford Research Inst. Menlo Park CA	1.655	1.200	Jun	0	Jun	0	Jun	Cont		
Operational Test & Evaluation	SS/FP PO	MEVATEC EGLIN AFB	0.905	0.905	Jan	0	Jan	0	Jan	Cont		
Evaluation other Costs		Savannah GA	0	6.000		0		0				
Travel & Conferences		ASCIET/Various	0.400	0.474		0		0		Cont		
Operational Costs/Research		ASCIET/Various	1.271	0.628		0		0		Cont		
Subtotal T&E			8.000*	12.976		0		0				
<p>Remarks: ASCIET is not a management type organization. The annual evaluation is planned and executed IAW the directives received from the JROC and the requirements of the four armed Services. ASCIET does not develop systems to deliver, but evaluates systems and TTPs.</p> <p>* FY1998 funding is provided as information only (non-add) as it is provided by all four Services by Memorandum of Agreement: Navy PE 0604777N, Army PE 0604817A, Marine PE 0206623M, and Air Force PE 0207417AF.</p>												
Total Cost			8.000	12.976		0		0				
Remarks												

Exhibit R-2, RDT&E Budget Item Justification									Date: February 1999	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide, Joint Staff/BA 6					R-1 ITEM NOMENCLATURE 0605126J Joint Theater Air and Missile Defense Organization (JTAMDO)					
COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total PE Cost	14.764	109.599	17.079	16.713	17.042	17.341	17.323	17.306	Continuing	Continuing
<b>A. Mission Description and Budget Item Justification</b>										
<p>JTAMDO is the single organization within DOD chartered to plan, coordinate, and oversee joint integrated theater air and missile defense (TAMD) requirements, joint operational concepts, and operational architectures. JTAMDO is also responsible for proposing and evaluating concepts, architectures, capabilities and technologies. Evaluations are to determine deficiencies in DOD's air and missile defense capabilities and their impact on warfighting CINCs in order to define requirements, architectures, and weapon system performance. The JTAMDO functions include: lead development of joint concepts, architectures and requirements; serve as the operational community's proponent for requirements in theater air and missile defense; serve as the joint theater air and missile defense resource proponent within the resource allocation structures of the Services, BMDO, and DARPA; lead TAMD mission area analysis; conduct evaluations and demonstrations of joint air defense architectures and concepts; monitor the research, development, acquisition, and demonstration activity associated with the Service's TAMD programs; recommend to the JROC those RD&amp;A efforts which should be designated as TAMD programs; recommend to the JROC and USD A&amp;T requirements, technologies, architectures, and concepts which should be evaluated, developed, and fielded; develop and maintain the TAMD Master Plan which will contain requirements, assessments of current and future capabilities, and an acquisition roadmap for development and fielding of required capabilities. This program is in budget activity 6 – as it performs management support of RDT&amp;E Activities.</p>										
	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Description</u>					
	\$2.644	3.132	3.074	3.008	To fund JTAMDO operations, including office lease, equipment, training, facility maintenance, administrative support, technical support and travel.					
	\$3.500	4.073	4.099	4.012	To fund demonstration activities, including additional analysis at planned Service test and technology demonstration (USAF and USMC) to focus on joint concepts in order to define joint requirements and refine employment concepts.					
	\$1.200	1.397	1.367	1.336	Conduct modeling and simulation activities to: provide an analytical basis for requirements; develop and evaluate new battle management concepts and employment concepts; examine the impact and application of advanced technology concepts. Planned activities include integration of AWACs and Patriot with the Navy's Cooperative Engagement Capability (CEC) system; examination of basic employment concepts for joint engagement zone operations; and examination of cruise missile defense systems and architectures to determine current and future DOD capabilities.					
	\$6.450	7.557	7.515	7.354	Conduct analysis. There are various activities such as Service support, single integration air picture (SIAP), combat identification, battle management. JTAMD analysis and requirements, advanced studies. Developing threat scenarios to support analysis efforts. Conduct initial planning and development for a FY02 TAMD demonstration.					
	\$0.970	1.129	1.024	1.003	Provide direct support to CINCs to evaluate and explore unique CINC problem areas in TAMD by facilitating and funding the participation of agencies, C2 platforms, and test support equipment and personnel in exercises such as Foal Eagle and Optic Windmill.					
		92.311			Congressionally directed funds to support a variety of TAMD program, studies and analysis.					
	\$ 14.764	109.599	17.079	16.713	Total					

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, Defense Wide, Joint Staff/BA 6

R-1 ITEM NOMENCLATURE  
0605126J Joint Theater Air and Missile Defense Organization (JTAMDO)

B. Program Change Summary:

	FY 1998	FY 1999	FY 2000	FY 2001
FY 1999 President's Budget	14.374	17.423	17.357	17.002
FY 1999 Appropriated Value		109.923		
Adjustments to Appropriated Value:				
a. Reallocation of Non-programmatic Reductions	.390			
b. Congressional Non-Programmatic Adj/Inflation		-.324	-.278	-.289
FY 2000 President's Budget	14.764	109.599	-17.079	16.713

Reason for Change: The change between FY 1998 and 1999 was due to increased requirements levied by the CINCs and other Services. The change in the FY 1999 budget is due to a congressionally mandated increase for Theater Air Missile Defense (TAMD). Reductions reflect program's share of Congressional undistributed reductions and inflation adjustments.

C. Other Program Funding Summary: Not Applicable

D. Acquisition Strategy:

The strategy developed to examine JTAMD functions, missions, and capabilities is to: identify and develop a joint and netted JTAMD capability, integrated into a global architecture, leverage ongoing programs by exploring upgrades to existing weapons systems. By examining incremental improvements to the entire kill chain, the strategy is designed to avoid prematurely investing in single components at the expense of the overall family of systems, execute a demonstration based approach wherein systems upgrades and new system concepts are validated by field testing.

E. Schedule Profile.

(Fiscal Qtr)	<u>FY 1998</u>				<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Infrastructure	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Exercises and Demonstration	X	X			X	X			X	X			X	X		
Mod Simulation	X	X			X	X			X	X			X	X		
Analysis	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CINC Support	X				X				X				X			

Exhibit R-3 Cost Analysis (page 1)									Date: February 1999			
APPROPRIATION/BUDGET ACTIVITY 0400/BA 6			PROGRAM ELEMENT 0605126J						PROJECT NAME AND NUMBER JTAMDO			
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Infrastructure	C/SS/PO	Various	2.644	3.132		3.074		3.008		Continuing	Cont.	
Exercises/Demonstrations	MIPR/C	Various	3.500	4.073		4.099		4.012		Continuing	Cont.	
Modeling and Simulation	MIPR/C	Various	1.200	1.397		1.367		1.336		Continuing	Cont.	
Analysis	MIPR/C	Various	6.450	7.557		7.515		7.354		Continuing	Cont.	
CINC Support	MIPR/C	Various	.970	1.129		1.024		1.003		Continuing	Cont.	
Special Projects				92.311								
<b>TOTAL</b>			<b>14.764</b>	<b>109.599</b>		<b>17.079</b>		<b>16.713</b>				
Remarks:												
Total Cost			14.764	109.599		17.079		16.713				
Remarks												

**APPROPRIATION/BUDGET ACTIVITY**

RDT&amp;E, Defense Wide, Joint Staff/BA 7

**R-1 ITEM NOMENCLATURE**

PE: 0208052J Joint Analytic Model Improvement Program (JAMIP)

COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Joint Warfare System (JWARS)	2.014	1.842	1.024	0.358	0.197	0	0	0	N/A	TBD
Total PE Cost	2.014	1.842	1.024	0.358	0.197	0	0	0	TBD	TBD

A. Mission Description and Budget Item Justification: In May 1995, DepSecDef approved JAMIP to improve analytic support to senior DOD officials. The Joint Staff/J-8 shares the lead with OSD/PA&E. The centerpiece of JAMIP is the development of the Joint Warfare System (JWARS), which will be a state-of-the-art, closed-form, constructive simulation of multi-sided, joint warfare for analysis. The Joint Staff and the Services have agreed upon JWARS as the common model to be used throughout the DOD analytic modeling community. JWARS is an advanced theater-level campaign analysis tool that will provide improved C4ISR and balanced joint warfare representations and will be used for evaluation of courses of action, analysis of force sufficiency, force and capability trade-offs, objective force planning and force structure design, analysis of system alternatives, system trade-offs, and examination of operational concepts. Users of JWARS will include the combatant commanders, Joint Staff, Services, OSD, and other DOD organizations. R&D funds are used for research and design on challenging representation problems, and for test and evaluation, and are needed to continue development of the top priority joint warfare model as directed by DepSecDef and endorsed by VCJCS. This program is in Budget Activity 7 - Operational Systems Development because it supports currently employed systems and training activities.

FY 1998	FY 1999	FY 2000	FY 2001	Description
\$0.714	\$0.452	\$0.250	\$0.124	Management and professional support services
\$0.100	\$0.200	\$0.170	\$0.234	CAAS engineering and technical services
\$0.650	\$0.451	\$0.410	\$0.000	FFRDC engineering and technical services
\$0.550	\$0.739	\$0.194	\$0.000	Other services
\$2.014	\$1.842	\$1.024	\$0.358	Total

## B. Program Change Summary:

	FY 1998	FY 1999	FY 2000	FY 2001
FY 1999 President's Budget	1.940	1.847	1.041	0.364
FY 1999 Appropriated Value				
Adjustments to Appropriated Value:				
a. Reallocation of Non-programmatic Reductions	.074			
b. Congressional Non-Programmatic Adj/Inflation		-.005	-.017	-.006
FY 2000 President's Budget	2.014	1.842	1.024	0.358

Reductions reflect program's share of Congressional undistributed reductions and inflation adjustments.

**APPROPRIATION/BUDGET ACTIVITY**

RDT&amp;E, Defense Wide, Joint Staff/BA 7

**R-1 ITEM NOMENCLATURE**

PE: 0208052J Joint Analytic Model Improvement Program (JAMIP)

**C. Other Program Funding Summary:**

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To <u>Complete</u>	Total <u>Cost</u>
O&M Defense-Wide	11.282	8.368	11.296	11.577	11.578	7.850	7.850	7.850	NA	NA
Procurement Defense-Wide	0.526	0.829	0.696	0.618	0.402	0.410	0.409	0.409	NA	NA

**D. Acquisition Strategy:** This program supports development of the JWARS model and the R&D effort will terminate as the model is fielded.

**E. Schedule Profile:**

(Fiscal Qtr)	<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>				<u>FY 2002</u>			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Alpha testing		X														
Release 1.0						X										
Release 2.0									X							
Release 3.0															X	

Exhibit R-3 Cost Analysis (page 1)									Date: September 1998			
APPROPRIATION/BUDGET ACTIVITY: RDT&E, Defense Wide, Joint Staff/BA 7			PROGRAM ELEMENT: 0208052J Joint Analytic Model Improvement Program (JAMIP)						PROJECT NAME: Joint Warfare System (JWARS)			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Management and professional support services	Various	Various	0.594	0.452		0.250		0.124				
CAAS engineering and technical services	Various	Various	0.615	0.200		0.170		0.234				
FFRDC engineering and technical services	Various	Various	0.816	0.451		0.410		0.000				
Other services	Various	Various	0.975	0.739		0.194		0.000				
Subtotal Product Development			3.000	1.842		1.024		.358				
Remarks: T&E included under product development efforts.												
Total Cost			3.000	1.842		1.024		.358				
Remarks												

APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide, Joint Staff/BA 7					R-1 ITEM NOMENCLATURE C4I for the Warrior 0303149j					
COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total PE Cost	2.387	2.811	3.018	2.915	2.974	2.914	2.906	2.898	TBD	TBD
Advanced Concepts	2.194	2.649	2.815	2.714	2.796	2.729	2.726	2.724	TBD	TBD
Joint Warrior Interoperability Demonstrations (JWID)	.193	.162	.203	.201	.178	.185	.180	.174	TBD	TBD
Standardized Tactical Entry Point (STEP)	0	0	0	0	0	0	0	0		
Quantity of RDT&E Articles	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

A. Mission Description and Budget Item Justification

C4I for the Warrior is the linchpin for promoting immediate joint coalition C4I interoperability worldwide. This program provides focus and visibility into resolving C4I interoperability issues and provides organizing principles, policy and doctrine for information superiority as directed by JV2010. C4IFTW stresses interoperability and leverages the rapid pace of C4I technology advancements. This program is based on three subprograms: 1) Advanced Concepts, 2) Joint Warrior Interoperability Demonstrations (JWID), and 3) Standardized Tactical Entry Point (STEP). As the C4IFTW concepts evolve and mature, they will spawn new approaches to providing the joint warfighter with a fused near-real-time, true representation of the battlespace. It is a unifying concept that brings the warrior an accurate and complete picture of the battlespace, timely and detailed mission objectives, and the clearest view of the targets. The Advanced Concepts initiative is intended to leverage commercial technologies and government-funded developments to provide high priority technologies to the warfighter in the shortest period of time. The current focus of Advanced Concepts, the Network Warfare Simulation (NETWARS) model, addresses communications burden issues. The NETWARS model will assess the effects of full operational combat traffic loading on current and future tactical communications; conduct quick-turn communications planning for small regional conflicts or peacekeeping scenarios; and evaluate new communication systems and technologies. JWIDs are Joint Staff-sponsored C4I demonstrations of existing, off-the-shelf, new and evolving C4I technologies. The demonstrations, which are jointly screened to determine ability to satisfy warfighting requirements, enable warfighters to operate these capabilities and assess their ability to enhance their operational missions. The STEP program will establish a standard set of C4I services at selected Defense Satellite Communications Systems (DSCS) gateways and STEP sites to support a commander joint task force (CJTF) and its component forces worldwide. STEP essentially extends the Defense Information System Network (DISN) to the tactical forces; specifically, services from the Defense Switched Network (DSN), Defense Red Switch Network (DRSN), Unclassified, but sensitive, and SECRET Internet Protocol Router Networks (NIPRNET/SIPRNET) video teleconference (VTC), and the Joint Worldwide Intelligence Communications System (JWICS). (STEP has no RDT&E funds - it uses O&M and procurement funds only; also, STEP transferred from the Joint Staff to DISA in FY 1999)

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, Defense-Wide, Joint Staff/BA 7

R-1 ITEM NOMENCLATURE  
C4I for the Warrior 0303149j

B. Program Change Summary.

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
FY 1999 President's Budget	2.506	2.819	3.016	2.910
FY 1999 Appropriated Value		2.819		
Adjustments to Appropriated Value:				
a. Reallocation of non-programmatic adjustments	.119		.051	.055
b. Congressional Non-Programmatic Adj/Inflation		-.008	-.049	-.050
FY 2000 President's Budget	2.387	2.811	3.018	2.915

Reason for Change:

- a. Reductions in FY 1998/9 are due to non-programmatic adjustments.

C. Other Program Funding Summary

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To <u>Complete</u>	Total <u>Cost</u>
O&M Defense-Wide	2.602	1.263	1.467	1.488	1.396	1.389	1.425	1.449	TBD	TBD
Procurement Defense-Wide	8.869	.787	.880	.861	.976	.976	.958	.940	TBD	TBD

Change between FY 1998 & FY 1999:

STEP transferred from the Joint Staff to DISA in FY 1999. The Joint Staff had exercised both oversight and acquisition responsibilities for the STEP program, due to its enormous importance to the warfighting CINCs, since it was approved by the MCEB and JROC in 1994. The STEP Design Plan was approved on 7 October 1994. Since then, the program has matured to the point that it no longer requires direct Joint Staff program management and, in fact, the Defense Information Systems Agency (DISA) already has an office assigned which has been fulfilling program acquisition functions. DISA is better suited for program management functions and this transfer of responsibility is consistent with its role in other Military Satellite Communication System terminal and baseband equipment upgrade programs. The Joint Staff (J6) will retain its role as the program oversight authority to ensure that the program remains a viable asset to the warfighter.

D. Acquisition Strategy: N/A.

E. Schedule Profile.

The RDT&E will be spent during various quarters of each FY.

Exhibit R-2a, RDT&E Project Justification

Date: February 1999

APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT		PROJECT NAME AND NUMBER						
RDT&E, Defense Wide, Joint Staff/BA 7		0303149j		C4I for the Warrior – Advanced Concepts						
Cost (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Advanced Concepts	2.194	2.649	2.815	2.714	2.796	2.729	2.726	2.724	TBD	TBD
RDT&E Articles Qty	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

A. Mission Description and Budget Item Justification

C4I for the Warrior is the linchpin for promoting immediate joint coalition C4I interoperability worldwide. This program provides focus and visibility into resolving C4I interoperability issues and provides organizing principles, policy, and doctrine for information superiority as directed by JV2010. C4IFTW stresses interoperability and leverages the rapid pace of C4I technology advancements. The Advanced Concepts subprogram is intended to leverage commercial technologies and government-funded developments to provide high-priority technologies to the warfighter in the shortest period of time. The initiative provides “seed money” to help focus on large scale advanced development efforts to satisfy current and projected warfighter needs. A primary means to evaluate emerging C4ISR technologies, from a requirement point of view, is via simulation. This simulation will be capable of evaluating emerging technologies, performing communications assessment, and doing contingency planning. It will be evolved through prototyping, database development, and rigorous verification and validation. The objective is to use the simulation to investigate high priority warfighter C4ISR technologies in the context of real warfighter scenarios. The current focus of Advanced Concepts, the Network Warfare Simulation (NETWARS) model, addresses communications burden issues. This effort will start with small joint service scenarios, evolve to include complete Joint Task Force (JTF) scenarios and ultimately to a Major Theater of War (MTW) scenario. Ultimately, the CINCs will have a tool to assist them in conducting network management scenarios to optimize and insure full and efficient C4 systems access and pull.

<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Description</u>
\$ .786	.803	.853	.893	Software Development
\$.379	.597	.635	.665	Program Mgmt
.105	.180	.257	.053	COTS HW & SW
\$.342	.392	.376	.395	Communications Developmental Studies
\$.051	.150	.159	.167	Configuration Mgmt
	.127	.135	.141	Maintenance
\$.276	.200	.200	.200	Verification & Validation
.200	.200	.200	.200	Contractor Eng. Support (FFRDC)
.055	.000	.000	.000	Independent Cost Estimate (FFRDC)
\$2.194	2.649	2.815	2.714	Total

APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide, Joint Staff/BA 7	PROGRAM ELEMENT 0303149j	PROJECT NAME AND NUMBER C4I for the Warrior – Advanced Concepts
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B. Other Program Funding Summary: not applicable

C. Program Development Strategy:

*FY 1997:* A Mission Needs Statement was developed and signed. Subsequent to initiating model development, an extensive Program Development Plan was developed and approved by the Director, Command, Control, Communications, and Computer (C4) Systems Directorate (J-6). A proof-of-concept effort validated the concept and determined that NETWARS would support the requirements. *FY 1998:* A Configuration Management Plan, Software Development and Integration Plan, and Systems Architecture Design Plan were developed. Initiated software and communications modules development, and integration. NETWARS Toolkit Version 1.1 functional requirements were derived, documented, and formalized. JWARS initial requirements for C4 were evaluated relative to expected analytical outputs from NETWARS. *FY 1999:* Software and communications modules development and software integration will continue. If NETWARS is to support the modeling of communications effects in JWARS, a program plan will be developed to guide that effort. *FY 2000-2001:* Software development, module development, and integration software will continue. Manage and maintain NETWARS.

D. Schedule Profile:

The first Phase review was 23 September 1997, when the Phase I “proof of concept” results were presented to the J-6 and Service/agency representatives. The mid-Phase II In-Progress Review (IPR) to the J-6 and the Service/agency reps was held on 19 December 1997. The NETWARS project recently completed Block II of three blocks of development. Block I formally began in March 1997 and involved researching and writing a detailed NETWARS development plan, followed by conducting a “proof of concept” prototype demonstration of a small JTF scenario of 100 to 200 communications nodes. Block II began in mid-September 1997, and was completed in July 1998. In Block II, J6I continued the design and building to complete version 1.1 of the front-end toolset database, and completed a study of a small JTF of up to 5000 nodes. The scenario selected was the Synthetic Theater of War (STOW)/United Endeavor 98-1 scenario, which involved a Joint Task Force defense of Kuwait. Block III, which began in July 1998, will involve continued development, testing, and building of the Version 1.4 front-end tool set database for NETWARS plus completing a large major theater of war Joint Task Force scenario of up to 10,000 communications nodes.

	<u>FY 1998</u>				<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
(Fiscal Qtr)	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>Contract Award -- Jul 97</b>																
IOC								X								
FOC (FY 2005/4 <sup>th</sup> Qtr)																

Exhibit R-2a, RDT&E Project Justification

Date: February 1999

APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT			PROJECT NAME AND NUMBER					
RDT&E, Defense Wide, Joint Staff/BA 7		0303149j			C4I for the Warrior – Joint Warrior Interoperability Demonstration (JWID)					
Cost (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
JWID	.193	.162	.203	.201	.178	.185	.180	.174	TBD	TBD
RDT&E Articles Qty	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

A. Mission Description and Budget Item Justification

C4I for the Warrior is the linchpin for promoting immediate joint coalition C4I interoperability worldwide. This program provides focus and visibility into resolving C4I interoperability issues and provides organizing principles, policy and doctrine for information superiority as directed by JV 2010. C4IFTW stresses interoperability and leverages the rapid pace of C4I technology advancements. The Joint Warrior Interoperability Demonstrations (JWIDs) (subprogram) are Joint Staff-sponsored demonstrations of evolving low-cost, low-risk C4I technologies and joint interoperability solutions impartially presented to the CINCs and Military Services in an operational environment. Specific demonstrations are selected to fulfill identified warfighter deficiencies and are designed to provide the opportunity to experiment with new and evolving capabilities, assess their value, and recommend them for implementation where appropriate. JWIDs provide a structured process where new C4 capabilities are rapidly inserted after being rigorously vetted, evaluated, and assessed by the warfighter. JWIDs are integral components of the "C4I for the Warrior" (C4IFTW) concept and the Joint Vision 2010 (JV 2010) conceptual template for future joint warfighting. Demonstrations are required to conform with established standards on systems interoperability and must also be integrated into approved architectures that are Defense Information Infrastructure (DII)/Common Operational Environment (COE) Joint Tactical Architecture (JTA) compliant.

<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Description</u>
.193	.162	.203	.201	Contract Engineering and Technical Support
.193	.162	.203	.201	Total

B. Other Program Funding Summary

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Complete</u>	<u>Total Cost</u>
O&M Defense-Wide	1.219	1.263	1.467	1.488	1.396	1.389	1.425	1.449	TBD	TBD
Procurement Defense-Wide	.811	.787	.880	.861	.976	.976	.958	.940	TBD	TBD

C. Acquisition Strategy: N/A

D. Schedule Profile.

The RDT&E will be spent during various quarters of each FY.

Exhibit R-3 Cost Analysis (page 1)									Date: February 1999			
APPROPRIATION/BUDGET ACTIVITY 0400/BA7			PROGRAM ELEMENT 0303149j						PROJECT NAME AND NUMBER C4IFTW			
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Definition & Proof of Concept	CPFF	SAIC, MITRE	.430	0		0		0		TBD	TBD	
Software Development	CPFF	SAIC	1.471	.803		.853		.893		TBD	TBD	
Pgm Mgmt	CPFF	SAIC	.769	.597		.635		.665		TBD	TBD	
COTS Hardware and Software	CPFF	SAIC	.190	.180		.257		.053		TBD	TBD	
Subtotal Product Development			2.860	1.580		1.745		1.611		TBD	TBD	
Remarks:												
Communications Developmental Studies	CPFF	SAIC	.641	.392		.376		.395		TBD	TBD	
Configuration Mgmt	CPFF	SAIC	.092	.150		.159		.167		TBD	TBD	
Maintenance	CPFF	SAIC	0	.127		.135		.141		TBD	TBD	
Subtotal Support			.733	.669		.670		.703		TBD	TBD	
Remarks												

Exhibit R-3 Cost Analysis (page 2)									Date: February 1999			
APPROPRIATION/BUDGET ACTIVITY 0400/BA 7			PROGRAM ELEMENT 0303149j						PROJECT NAME AND NUMBER C4IFTW			
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY99 Cost	FY 99 Award Date	FY00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Verification & Validation		DISA	.500	.200		.200		.200		TBD	TBD	
Subtotal T&E			.500	.200		.200		.200		TBD	TBD	
Remarks												
Contractor (FFRDC) Eng Support		MITRE	.362	.200		.200		.200		TBD	TBD	
Independent Cost Estimate (ICE) (FFRDC)		MITRE	.100	0		0		0		TBD	TBD	
Contract Engineering and Technical Support (JWID)		Various	.387	.162		.203		.201		TBD	TBD	
Subtotal Management			.849	.362		.403		.401		TBD	TBD	
Remarks												
Total Cost			4.942	2.811		3.018		2.915		TBD	TBD	
Remarks All awards to SAIC under competitively won umbrella support contract, awarded Jul 97												

Exhibit R-2, RDT&E Budget Item Justification

Date: February 1999

APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE					
RDT&E, Defense Wide, Joint Staff/BA 7					0305188J Joint C4ISR Battle Center (JBC).					
COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total PE Cost	2.331	0	0	0	0	0	0	0		2.331

A. Mission Description and Budget Item Justification. The Joint Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Battle Center (JBC) is the Chairman of the Joint Chiefs of Staff (CJCS) facility for warfighter exploration and assessment of C4ISR capabilities. The Center provides the combatant commands, at the Joint Task Force (JTF) level, with a joint assessment and experimental environment for the warfighter and technologist in support of Joint Vision 2010 (JV2010). It serves as the technical analysis and assessment agency for the Joint Requirement Operating Council (JROC) in determining C4ISR system "value-added" PRIOR to introduction to the CINCs and in advance of system fielding in operational environments. The intent is for the JBC to be a forcing function for joint synchronization and a means to foster rapid, near-term insertion of C4ISR technology. The mission of the JBC is to provide rapid assessment of required C4ISR interoperability and warfighter utility, join emerging C4ISR technology with new operational doctrine, and result in fielding C4ISR capabilities that meet the joint warfighter's needs. Initial attention is focused on developing the experimentation and assessment methodology for implementing JV 2010. Program transferred to U.S. Atlantic Command in FY 99. This program element is under Budget Activity 07 because it supports operational systems development.

B. Program Change Summary:

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
FY 1999 President's Budget	2.808	0	0	0
FY 1999 Appropriated Value				
Adjustments to Appropriated Value:				
a. Reallocation of Non-programmatic Adjustments	-.477	0	0	0
FY 2000 President's Budget	2.331	0	0	0

C. Other Program Funding Summary

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To Complete	Total Cost
O&M Defense-Wide	11.664	0	0	0	0	0	0	0	0	N/A
Procurement Defense-Wide	2.794	0	0	0	0	0	0	0	0	N/A

D. Acquisition Strategy: N/A

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, Defense Wide, Joint Staff/BA 7

R-1 ITEM NOMENCLATURE  
0305188J Joint C4ISR Battle Center (JBC).

E. Schedule Profile.

	<u>FY1998</u>			
	1	2	3	4
Contract Award				X
Federated Battle Lab Initial Operational Capability				
ATM Assessment Report				
ATM Operational Demo				X
Link 16 Assessment Plans			X	

Exhibit R-3 Cost Analysis (page 1)									Date: September 1998			
APPROPRIATION/BUDGET ACTIVITY 0400/BA 7				PROGRAM ELEMENT: 0305188J					PROJECT NAME: Joint C4ISR Battle Center			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	C-CPFF	ODU	.138									
Development T&E	MIPR	MITRE/ODU	.068									
Government Engineering Supt	WR	SPAWARENGC	.026									
Subtotal Product Development			.232									
Remarks:												
Systems Engineering	C-CPFF	ODU	.087									
Government Engineering Supt	WR	SPAWARENGC	.526									
Misc	MIPR	Various	.085									
Subtotal Support			.698									
Remarks												
Dev Support Equipment Acq	MIPR	GSA Schedule	.182									
Systems Engineering	C-CPFF	ODU	.104									
Developmental T&E	MIPR	IDA	.500									
Gov Engineering Support	MIPR(s)	FBL Participants	.615									
Subtotal			1.401									
Remarks												
Total Cost			2.331									
Remarks												

**APPROPRIATION/BUDGET ACTIVITY:**

RDT&amp;E, Defense Wide, Joint Staff/BA 7

**R-1 ITEM NOMENCLATURE:**

0902298J Management Headquarters – Joint Warfighting Capabilities Assessment (JWCA).

COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total PE Cost	9.068	9.332	9.531	9.947	9.907	9.864	9.854	9.844	TBD	TBD

**A. Mission Description and Budget Item Justification:**

Joint Warfighting Capabilities Assessment (JWCA) are studies conducted in: strike, land and littoral warfare; strategic mobility and sustainability; sea, air, and space support; deterrence/counter proliferation; regional engagement/presence; command and control (C2); information warfare; intelligence, surveillance and reconnaissance; joint readiness (personnel); joint readiness (forces); and joint readiness (exercise/training). Each JWCA is sponsored by a Joint Staff directorate and is conducted by teams of warfighting and functional experts from the unified commands, services, office of the secretary of defense, federally funded research and development centers, and others as necessary. Assessments examine key relationships between warfighting capabilities/interactions and identify opportunities for improving warfighting effectiveness. This program is in Budget Activity 7 – Operational Systems Development because it supports currently employed systems and training activities.

FY 1998 Description

\$7.190 CAAS Contracted Studies.  
\$1.878 CAAS Studies Federally Funded Research and Development Centers.  
\$9.068 Total

FY 1999 Description

\$6.448 CAAS Contracted Studies.  
\$2.884 CAAS Studies Federally Funded Research and Development Centers.  
\$9.332 Total

FY 2000 Description

\$6.690 CAAS Contracted Studies.  
\$2.841 CAAS Studies Federally Funded Research and Development Centers.  
\$9.531 Total

FY 2001 Description

\$6.985 CAAS Contracted Studies.  
\$2.962 CAAS Studies Federally Funded Research and Development Centers.  
\$9.947 Total

**APPROPRIATION/BUDGET ACTIVITY:**

RDT&amp;E, Defense Wide, Joint Staff/BA 7

**R-1 ITEM NOMENCLATURE:**

0902298J Management Headquarters – Joint Warfighting Capabilities Assessment (JWCA).

**B. Program Change Summary:**

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
FY 1999 President's Budget	8.905	9.617	9.686	9.686
FY 1999 Appropriated Value		9.617		
Adjustments to Appropriated Value:				
a. Reallocation of Non-programmatic Adjustments	.163			.500
b. Congressional Non-Programmatic Adj./Inflation		-.285	-.155	-.172
FY 2000 President's Budget	9.068	9.332	9.531	9.947

Reductions reflect program's share of Congressional undistributed reductions and inflation adjustments. FY01 program increase supports additional studies for the QDR process for the FY 2002 report to the Congress.

**C. Other Program Funding Summary:**

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To <u>Complete</u>	Total <u>Cost</u>
O&M Defense-Wide	2.821	2.768	2.918	2.926	2.913	2.903	2.903	2.903	N/A	N/A

**D. Acquisition Strategy:** This program represents a continuing level of effort supporting a wide range of studies in the JWCA process. The deliverables in each study reflect the analysis required to assist decision-makers as they examine the relationships between warfighting capabilities/interactions and identify opportunities for improving warfighting effectiveness.

**E. Schedule Profile:** N/A

Exhibit R-3 Cost Analysis									Date: September 1998			
APPROPRIATION/BUDGET ACTIVITY: RDT&E, Defense Wide, Joint Staff/BA 7				PROGRAM ELEMENT: 0902298J Management Headquarters					PROJECT NAME: JWCA Studies			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Contracted Studies	C/FP/MIPR	AMSMI/CAS		0.150	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	ASC/Coleman		0.120	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	BAH		0.773	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	BDM		0.572	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	CECOM		0.273	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	DSC/BAH		0.145	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	JSC/IIT		0.255	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	LEADS		0.221	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	RPI		0.343	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	SAIC		3.862	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	SETA		0.200	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	SMC/FMBIC		0.200	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP	SRA		0.425	Var	TBD	TBD	TBD	TBD	Cont		
Contracted Studies	C/FP/MIPR	TRADOC		0.250	Var	TBD	TBD	TBD	TBD	Cont		
Subtotal Support				7.789		7.734		8.029				
Remarks: JWCA studies are not management organizations. The studies support the Joint Staff directorates and CINCs and are executed IAW directives received from the JROC. JWCA studies evaluate warfighting and supporting area assessments vice developing deliverable systems. FY 2000 and FY 2001 cost estimates cannot be determined pending prioritization by the JROC.												
FFRDC Studies	Reqn	IDA		0.874	Var	TBD	TBD	TBD	TBD	Cont		
FFRDC Studies	Reqn	LMI		0.350	Var	TBD	TBD	TBD	TBD	Cont		
FFRDC Studies	Reqn	MITRE		0.184	Var	TBD	TBD	TBD	TBD	Cont		
FFRDC Studies	Reqn	RAND		0.135	Var	TBD	TBD	TBD	TBD	Cont		
Subtotal Support				1.543		1.797		1.918				
Remarks: JWCA studies are not management organizations. The studies support the Joint Staff directorates and CINCs and are executed IAW directives received from the JROC. JWCA studies evaluate warfighting and supporting area assessments vice developing deliverable systems. FY 2000 and FY 2001 cost estimates cannot be determined pending prioritization by the JROC.												
Total Cost			23.052	9.332		9.531		9.947				
Remarks												

APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide, Joint Staff/BA-7					R-1 ITEM NOMENCLATURE PE 0902740J Joint Simulation System (JSIMS)					Cost to Complete	Total Cost
COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost	
Total PE Cost	23.381	24.681	18.421	16.323	16.579	16.835	19.341	21.845		157.289	
JSIMS	23.381	24.681	18.421	16.323	16.579	16.835	19.341	21.845		157.289	
Quantity of RDT&E Articles	1	1	1	1	1	1	1	1		1	

A. Mission Description and Budget Item Justification

JSIMS is at the leading edge of the Goldwaters-Nichols Act as the vehicle to institute interoperability and joint training and eliminate Service stovepipe training. JSIMS is a single, seamlessly integrated simulation environment designed to train Commanders in Chief (CINCs) and Services to meet the Chairman's Joint Training System requirements. It includes core infrastructure and mission space objects, both maintained in a common repository. The objects can be composed to create a simulation capability to support joint or Service training, rehearsal, or education objectives. JSIMS is a core of common and joint representations and services, a runtime hardware and software infrastructure, interfaces, and representations of Air/Space, Land, and Maritime Warfare functionality. JSIMS includes a strategy for specific representations. This synopsis also summarizes the JSIMS development acquisition strategy, which was originally outlined in the formal JSIMS Systems Acquisition Master Plan (SAMP) dated October 1998. This program is in Budget Activity 7 – Operational Systems Development, because it supports currently employed systems and training activities.

FY 1998 Description

\$ .850 Civilian Pay Compensation and Benefits.  
 \$ .250 Travel  
 \$ .240 Office Space Lease  
 \$ .040 Communications Charge  
 \$18.524 Software Development and Award Fee  
 \$ .322 Government Engineering Support  
 \$ .824 Systems R&D Development Support  
 \$ .384 Program Management Support  
 \$ 1.265 Systems R&D Development Support  
 \$ .682 Other Program Costs  
 \$23.381 Total

FY 1999

\$ .975 Civilian Pay Compensation and Benefits  
 \$ .250 Travel  
 \$ .259 Office Space Lease  
 \$21.229 Software Development and Award Fee  
 \$ .648 Government Engineering Support  
 \$ .554 Systems R&D Development Support  
 \$ .160 Program Management Support  
 \$ .606 Systems R&D Development Support  
 \$24.681 Total

## APPROPRIATION/BUDGET ACTIVITY

## R-1 ITEM NOMENCLATURE

RDT&amp;E, Defense Wide, Joint Staff/BA-7

PE 0902740J Joint Simulation System (JSIMS)

FY 2000

\$ .990 Civilian Pay Compensation and Benefits  
 \$ .268 Travel  
 \$ .265 Office Space Lease  
 \$16.668 Software Development and Award Fee  
 \$ .230 Systems Development R&D Support  
 \$18.421 Total

FY 2001

\$ .995 Civilian Pay Compensation and Benefits  
 \$ .164 Travel  
 \$ .269 Office Space Lease  
 \$14.670 Software Development and Award Fee  
 \$ .225 Systems Development R&D Support  
 \$16.323 Total

## B. Program Change Summary:

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
FY 1999 President's Budget	23.443	24.775	18.722	16.606
FY 1999 Appropriated Value				
Adjustments to Appropriated Value:				
a. Reallocation of non-programmatic adjustments	-0.062	0.000	0.000	0.000
b. Congressional Non-Programmatic Adj/Inflation	-0.000	-0.094	-0.301	-0.283
FY 2000 President's Budget	23.381	24.681	18.421	16.323

Reason for Change: Reductions reflect program's share of Congressional undistributed reductions and inflation adjustments.

## C. Other Program Funding Summary : N/A

D. Acquisition Strategy: Deliver a Joint Simulation System (JSIMS) as developed via a Cost Plus Award Fee (CPAF) contract awarded on 2 Dec 96. This development effort is in conjunction with the SAMP cited in paragraph A above and in accordance with an Acquisition Program Baseline (APB) dated March 1998.

APPROPRIATION/BUDGET ACTIVITY  
RDT&E, Defense Wide, Joint Staff/BA-7

R-1 ITEM NOMENCLATURE  
PE 0902740J Joint Simulation System (JSIMS)

E. Schedule Profile.

(Fiscal Qtr)	<u>FY 1998</u>				<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Build 0 Development Readiness Milestone	X															
Build 0 Integration Readiness Milestone		X														
Build 1 Development Readiness Milestone					X											
Build 1 Integration Readiness Milestone						X										
Build 1 Demonstration							X									
Build 2 Development Readiness Milestone						X										
Build 2 Integration Readiness Milestone									X							
Build 2 Collaborative Event										X						
Build 3 Development Readiness									X							
Build 3 Integration Readiness Milestone											X					
Build 3 Collaborative Event													X			
JSIMS Initial Fielding (IOC)															X	

Exhibit R-3 Cost Analysis (page 1) Joint Simulation System (JSIMS)										Date: January 1999		
APPROPRIATION/BUDGET ACTIVITY RDTE/BA-7				PROGRAM ELEMENT 0902740J				PROJECT NAME AND NUMBER JSIMS				
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Development Support	DO	ARINC/PTI, Annapolis, MD	.945								.945	N/A
Software Development	CPAF	TRW, Orlando, FL	31.925	18.907	11/98	13.668	11/99	11.736	11/00	24.986	101.222	101.222
Training Development												
Integrated Logistics Support												
Configuration Management												
Technical Data												
Award Fees			1.370	2.322		3.000		2.934		5.557	15.183	15.183
Subtotal Support			34.240	21.229		16.668		14.670		30.660	117.350	116.405
Remarks NOTE: These contracts awarded by USAF, Electronic Systems Command, Hanscom AFB, MA.												
Developmental Test & Evaluation	MIPR	Army, APG, MD	.075								.075	N/A
Subtotal T&E			.075								.075	
Remarks												
Systems R&D Development Support	IDIQ/ T&M	Nations, Inc./BTG. Orlando, FL	3.364	.554	10/98						3.918	N/A
Systems R&D Development Support	FFRDC/ CPFF	Mitre Corp., McLean, VA	1.379	.606	10/98	.230	10/99	.225	10/00		2.440	N/A
Government Engineering Support	MIPR	Army, Orlando, FL	.350	.350	12/98						.700	N/A
Government Engineering Support	MIPR	Army, Orlando, FL	.193	.200	6/98						.393	N/A
Government Engineering Support	MIPR	Army, Orlando, FL	.090	.098	9/99						.188	N/A
Program Management Personnel	MIPR	NPGS, Monterey, CA	.290		11/98						.290	N/A
Program Management Personnel	MIPR	USAF, Hanscom AFB, MA	.734	.160							.894	N/A
Travel	MIPR	Navy, Orlando, FL	.461	.250	10/98	.268	10/99	.164	10/00		1.143	N/A

Exhibit R-3 Cost Analysis (page 2) Joint Simulation System (JSIMS)										Date: January 1999		
APPROPRIATION/BUDGET ACTIVITY RDTE/BA-7				PROGRAM ELEMENT 0902740J						PROJECT NAME AND NUMBER JSIMS		
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Labor	MIPR	Navy, Orlando, FL	1.463	.975	10/98	.990	10/99	.995	10/00		4.423	N/A
Overhead		Various	1.762	.259	12/98	.265	12/99	.269	12/00		2.555	N/A
Subtotal Management			10.086	3.452		1.753		1.653			16.944	
Total Cost			44.401	24.681		18.421		16.323			134.369	
Remarks												